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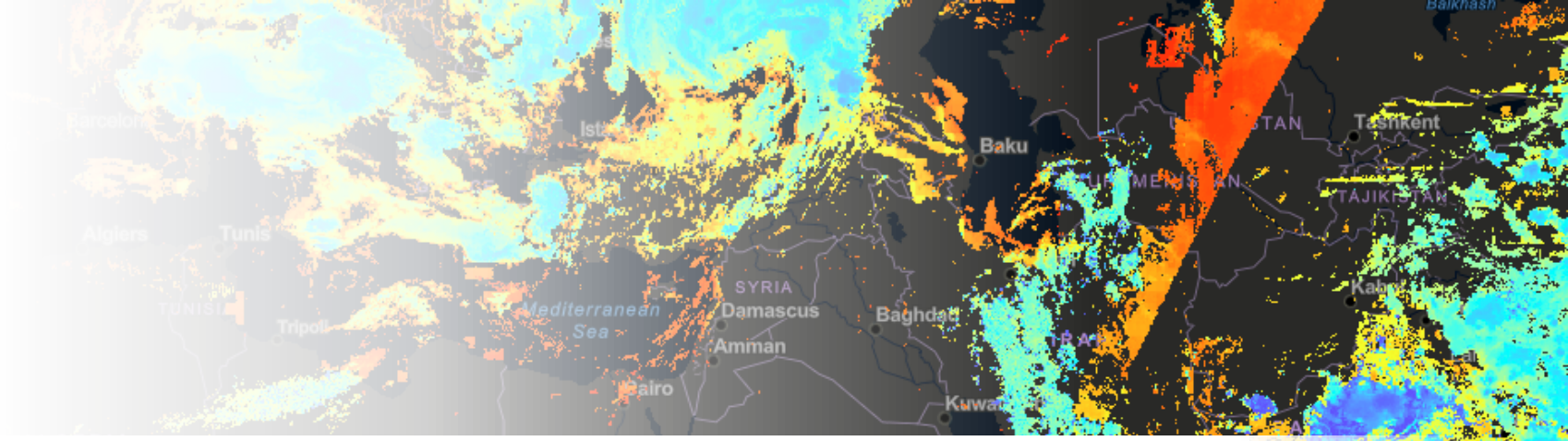


# Visualization and Analysis of Near Real-Time Global Cloud Composites (GCC):
## Integration in a Geospatial Web Mapping Application

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## Esri Cloud Raster Format

*Multidimensional/Transposed Cloud-optimized analysis ready data (ARD)*

## NASA Earthdata GIS (gis.earthdata.nasa.gov)

*Geospatially service enabled ArcGIS Image Services hosted at Earthdata GIS*

## Esri API for JS v4 & Calcite Design

*Custom web mapping application with visualization analytical functionality*

## Technologies Used on Web App

*React/JavaScript*

*JSX*

*CSS*

*React Redux*

*ArcGIS Maps SDK for JavaScript*

*Calcite Design System*

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# Imagery Analysis Capabilities

### Select and Manipulate Imagery

*Toggle visibility and customize with a pixel filter, transparency control and color ramp table/slider*

### Compare Multiple Layers

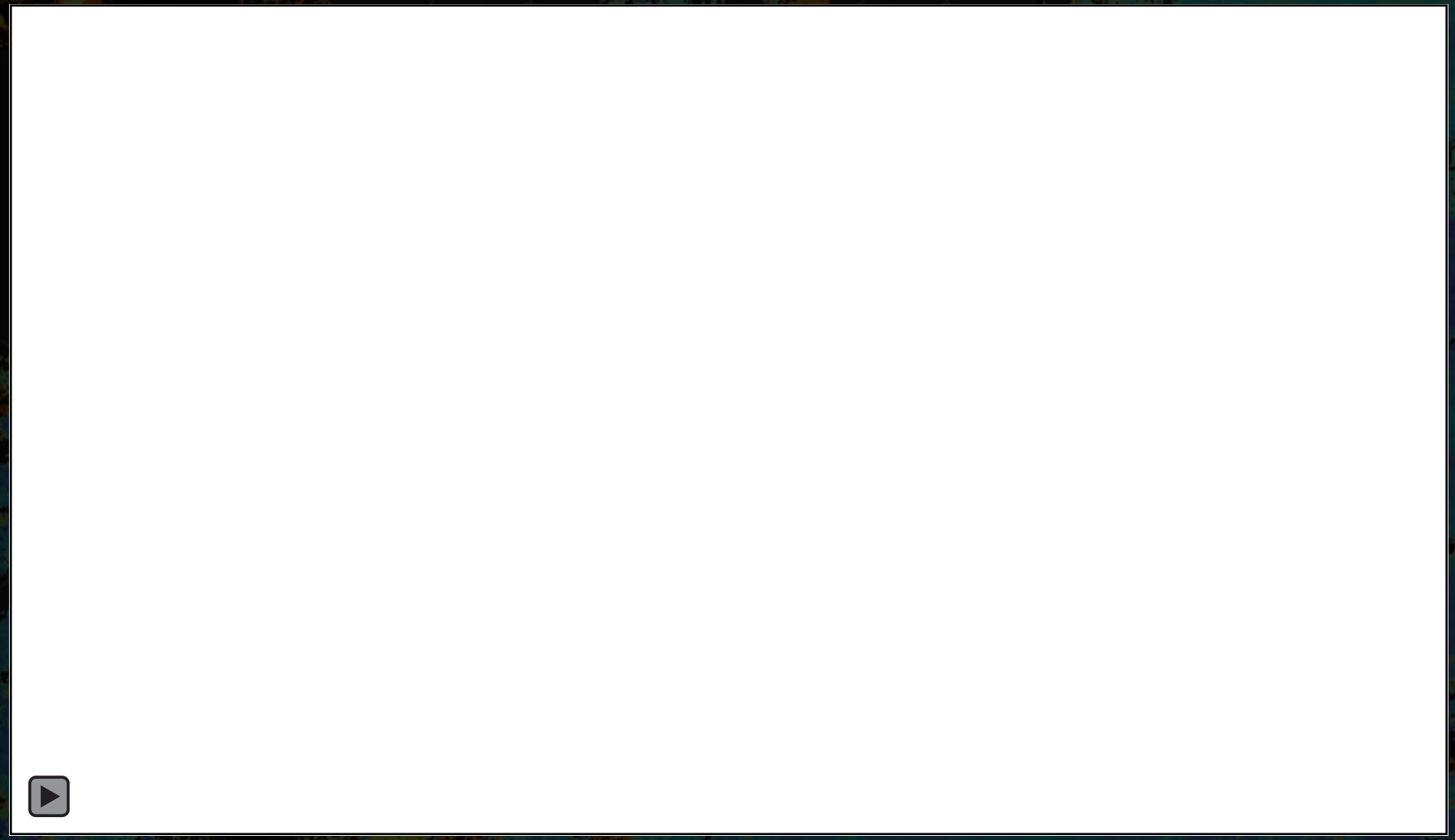
*Compare multiple layers with a swipe widget*

### Time slider

*Animate temporally enabled imagery layers with a slider*

### Time series

*Display a time series of the data from temporally enabled imagery layers*



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# Field Campaigns Support

### Search Functionality

*Filter field campaigns by name*

### Detailed Field Campaign View

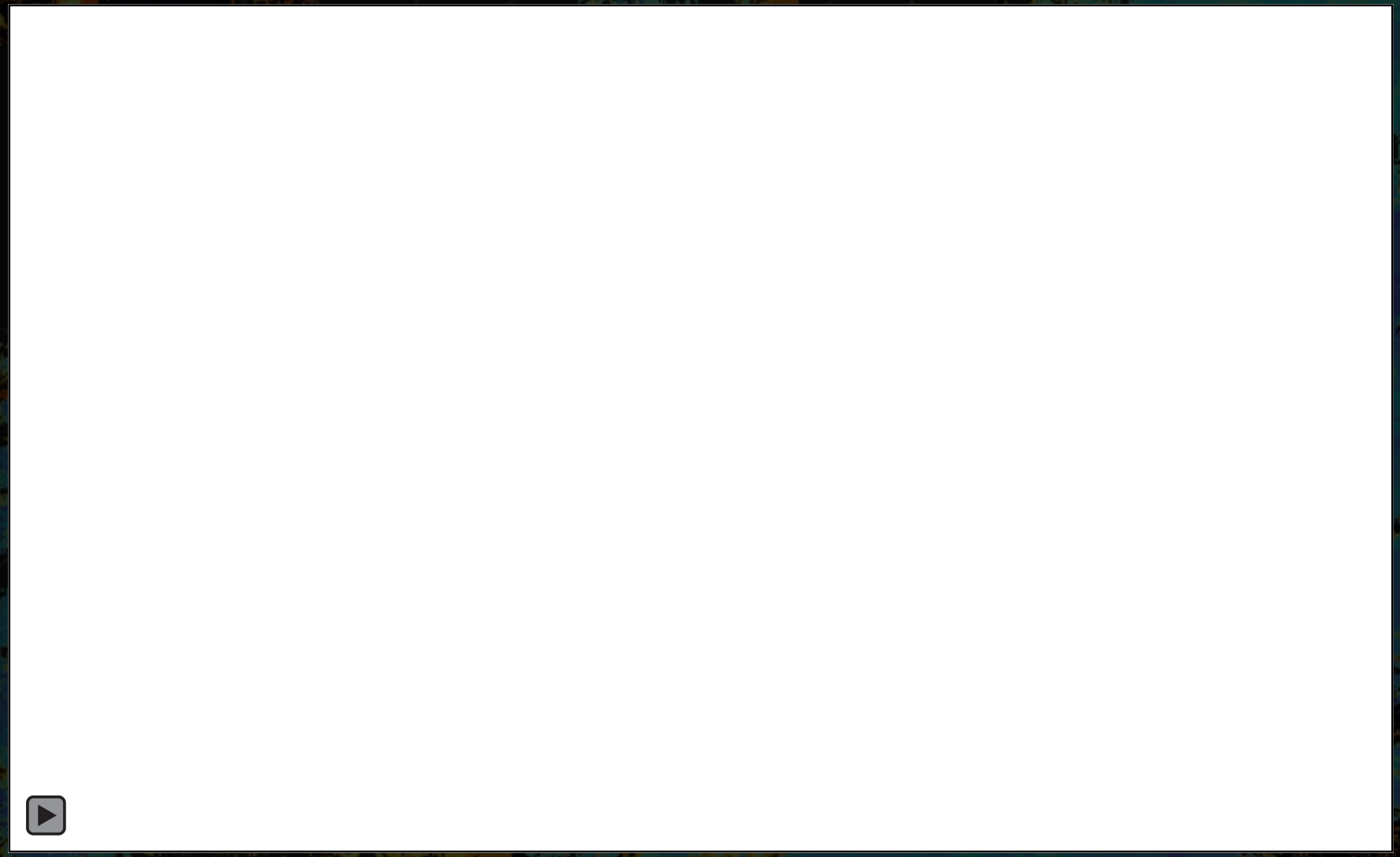
*View details about each field campaign individually*

### Detailed Flight Calendar

*View flight data for specific days within a calendar layout*

### Direct Access to Data Files

*Download the direct data relevant to the field campaign*



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# Direct Data Subset & Download

### Subset vs Full

*Subset the imagery data from OpenDAP*

### Change Subset Data Format

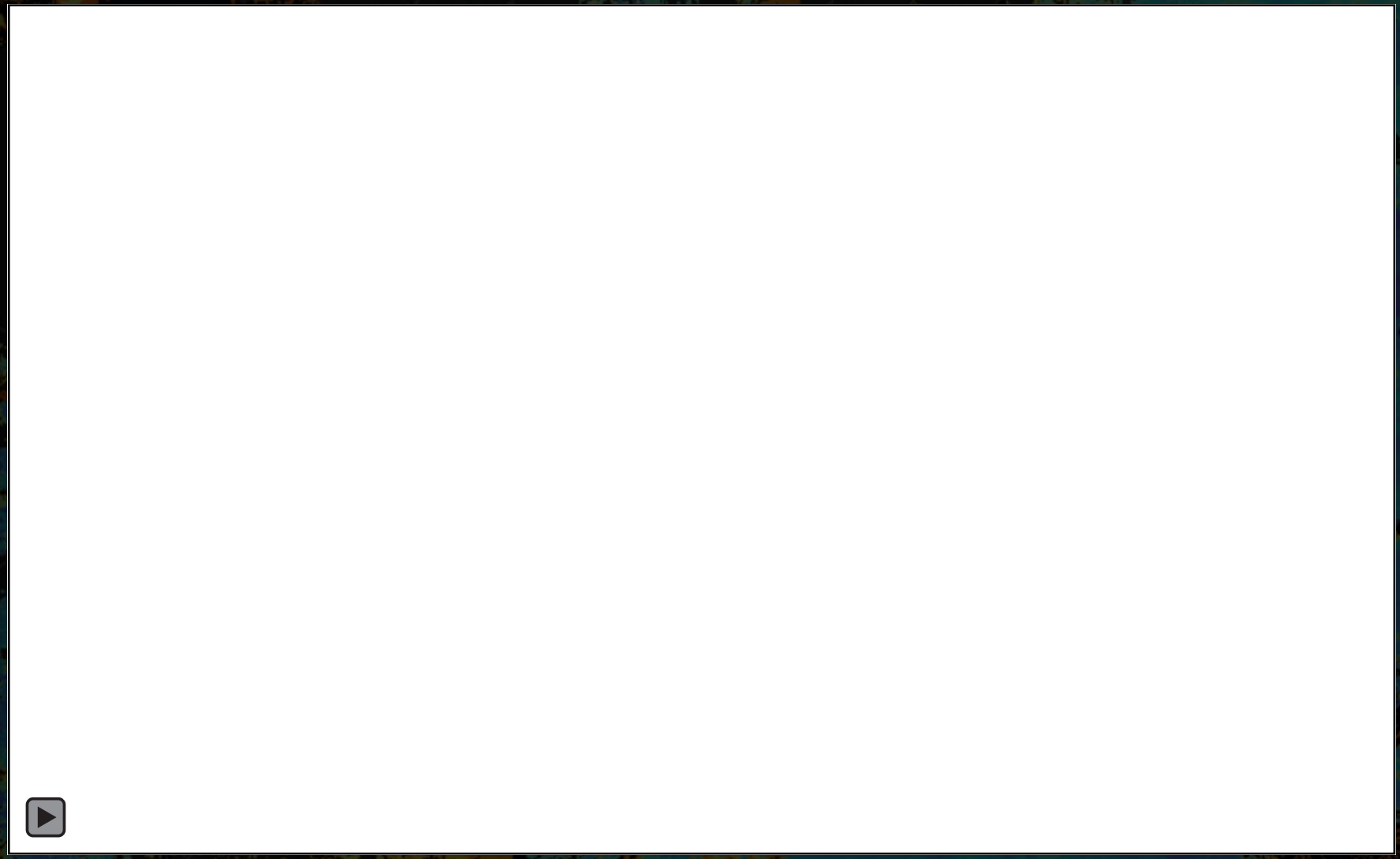
*Change the format of the subset data which include PNG, KMZ, GeoTIFF and NetCDF*

### Change Subset Time

*Select the time and date of the data to subset with*

### Populate from Rectangle Tool

*Use the rectangle sketch tool to directly populate coordinates or vice versa*



# Thank you for listening!

***Any questions?***

## Additional Information

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**Project Website:** *satcorps.larc.nasa.gov*